BEFORE THE STATE OF NEW JERSEY

BOARD OF PUBLIC UTILITIES

OFFICE OF ADMINISTRATIVE LAW

| | | |
|---|---|---|
| IN THE MATTER OF THE | ] | |
| PETITION OF SHORELANDS | ] | BPU Docket No. WR04040295 |
| WATER COMPANY, INC. FOR | ] | |
| AN INCREASE IN BASE RATES | ] | OAL Docket No. PUCRA04214-2004S |
| FOR WATER SERVICE, DEFERRED | ] | |
| ACCOUNTING AND OTHER | ] | |
| TARIFF MODIFICATIONS | ] | |

# DIRECT TESTIMONY OF

# ANDREA C. CRANE

## REGARDING REVENUE REQUIREMENTS AND COST OF CAPITAL

ON BEHALF OF

THE DIVISION OF THE RATEPAYER ADVOCATE

August 23, 2004

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## I. STATEMENT OF QUALIFICATIONS

**Q. Please state your name and business address.**

A. My name is Andrea C. Crane and my business address is 1 North Main Street, PO Box 810, Georgetown, Connecticut 06829.

**Q. By whom are you employed and in what capacity?**

A. I am Vice President of The Columbia Group, Inc., a financial consulting firm that specializes in utility regulation. In this capacity, I analyze rate filings, prepare expert testimony, and undertake various studies relating to utility rates and regulatory policy. I have held several positions of increasing responsibility since I joined The Columbia Group, Inc. in January 1989.

**Q. Please summarize your professional experience in the utility industry.**

A. Prior to my association with The Columbia Group, Inc., I held the position of Economic Policy and Analysis Staff Manager for GTE Service Corporation, from December 1987 to January 1989. From June 1982 to September 1987, I was employed by various Bell Atlantic (now Verizon) subsidiaries. While at Bell Atlantic, I held assignments in the Product Management, Treasury, and Regulatory Departments.

**Q. Have you previously testified in regulatory proceedings?**

A. Yes, since joining The Columbia Group, Inc., I have testified in approximately 170 regulatory proceedings in the states of Arizona, Arkansas, Connecticut, Delaware, Hawaii, Kansas,

Maryland, New Jersey, New Mexico, New York, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Vermont, West Virginia and the District of Columbia. These proceedings involved water, wastewater, gas, electric, telephone, solid waste, cable television, and navigation utilities. A list of dockets in which I have filed testimony is included in Appendix A.

**Q. What is your educational background?**

A. I received a Masters degree in Business Administration, with a concentration in Finance, from Temple University in Philadelphia, Pennsylvania. My undergraduate degree is a B.A. in Chemistry from Temple University.

## II. PURPOSE OF TESTIMONY

**Q. What is the purpose of your testimony?**

A. On or about April 24, 2004, Shorelands Water Company ("Shorelands" or "Company") filed a Petition with the State of New Jersey, Board of Public Utilities ("BPU" or "Board") requesting a rate increase of $1,642,583 or approximately 19.7% in its rates for water service. The Columbia Group, Inc. was engaged by The State of New Jersey, Division of the Ratepayer Advocate ("Ratepayer Advocate") to review the Company's Petition and to provide recommendations to the Board regarding the Company's revenue requirement and cost of capital claims.

## III. SUMMARY OF CONCLUSIONS

**Q. What are your conclusions concerning the Company's revenue requirement and its need for rate relief?**

A. Based on my analysis of the Company's filing and other documentation in this case, my conclusions are as follows:

1. The Company's claim includes investment and expenses that extend too far past the end of the test year selected by the Company, especially considering the litigation schedule in this case.
2. The BPU should adopt a test year ending December 31, 2004, for purposes of determining the Company's immediate need for rate relief.
3. The BPU should not include any post-test year adjustments when considering the Company's need for immediate rate relief.
4. The Company has a test year pro forma rate base of $9,281,191 (see Schedule ACC-2).[1]
5. The Company has a pro forma capital structure that consists of 42.34% common equity, 20.62% existing long-term debt, and 37.05% new long-term debt (see Schedule ACC-10).

1 Schedules ACC-1, ACC-28, and ACC-29 are summary schedules, ACC-2 to ACC-9 are rate base schedules, ACC-10 to ACC-15 are cost of capital schedules, and ACC-16 to ACC-26 are operating income schedules. Schedule ACC-27 addresses the Company's Phase II increase.

6. The Company has a pro forma cost of equity of 9.47% (see Schedule ACC-11).

7. Based on my recommended capital structure and capital cost rates, I recommend that the Board adopt an overall cost of capital of 7.23% for Shorelands (see Schedule ACC-10).

8. The Company has pro forma operating income at present rates of $606,658 (see Schedule ACC-16).

9. Shorelands has a test year, pro forma, revenue requirement deficiency of $112,957 (see Schedule ACC-1). This is in contrast to the Company's claimed deficiency of $1,642,583.

10. Shorelands should not receive rate recognition for its new water treatment replacement project until such time as the plant is completed and serving water utility customers.

11. When the replacement plant is in-service, the Board should authorize a Phase II rate increase for the Company of an additional $958,013 (see Schedule ACC-27).

## IV. TEST YEAR

**Q. What test year did the Company utilize in this case?**

A. Shorelands filed its case based on the test year ending December 31, 2004. Its revenue claim is based on customers at January 1, 2005, effectively the end of the test year. Shorelands' rate base claim includes plant-in-service and other rate base components through December 31, 2005, a full year after the end of the Company's test year. Shorelands has also included expenses based on

2005 estimates. Thus, although the Company states that its filing is based on a test year ending December 31, 2004, the Company's Petition as filed effectively reflects a test year ending December 31, 2005 for its rate base components and operating expenses.

**Q. Why has the Company included adjustments in its filing that extend so far beyond the end of its stated 2004 test year?**

A. This Company's filing is being driven by its decision to replace one of its two treatment plants. As stated in the Petition on page 1, Shorelands is proposing to "completely replace the process equipment of one of its two water treatment plants which has been in-service for approximately 50 years." The replacement plant will be a membrane filtration system facility. The Company has estimated the cost of this replacement plant to be approximately $6.3 million. Shorelands is proposing to have this plant operating prior to the 2005 summer season. Therefore, Shorelands' Petition is designed to include recovery for both capital and operating costs associated with the membrane filtration replacement plant.

**Q. Has the BPU permitted certain post-test year adjustments to be reflected in rates in the past?**

A. The BPU has permitted post-test year adjustments to be included under certain circumstances. As discussed in the Board's Decision on Motion for Determination of Test Year and Appropriate

Time Period for Adjustments, Docket No. WR8504330, page 2, the BPU stated that,

> With regard to the second issue, that is, the appropriate time period and standard to apply to out-of-period adjustments, the standard that shall be applied and shall govern petitioner's filing and proofs is that which the Board has consistently applied, the "known and measurable" standard. Known and measurable changes to the test year must be (1) prudent and major in nature and consequence, (2) carefully quantified through proofs which (3) manifest convincing reliable data. The Board recognizes that known and measurable changes to the test year, by definition, reflect certain contingencies; but in order to prevail, petitioner must quantify such adjustments by reliable forecasting techniques reflected in the record.

However, in this case, the vast majority of the Company's plant-in-service additions will not be in-service by the end of the test year. The Company's claim for utility plant-in-service additions is approximately $7.34 million, and Shorelands acknowledges that approximately 95% of these additions will occur after the end of the test year in this case. Moreover, the Petition in this case contains only three months of actual results. Even though the Company intends to update its Petition during the litigation phase of this case, I have only seven months of actual data available as of the preparation date of this testimony. Of even greater concern is the fact that given the hearing schedule in this case, only eight months of data will be available when this case goes to hearings in September. While I recognize that utilities in New Jersey often include forecast data in their test year projections, in my experience utilities generally have more that three months of actual data included in their rate petitions. Moreover, projected data is usually updated for actual results by the time that a case goes to hearings.

**Q. What do you recommend?**

A. Given the fact a) that this Petition was filed with only three months of actual data, 2) that only eight months of data will be available by the time of hearings, and 3) that 95% of all utility plant-in-service additions are projected to be in-service after the end of the test year, I recommend that the Board eliminate all post-test year adjustments from the Company's revenue requirement.

**Q. How do you recommend that the BPU handle the treatment plant replacement project in evaluating the Company's need for rate relief?**

A. In order to determine the Company's immediate need for rate relief, I recommend that that BPU eliminate all post-test year adjustments, including the treatment plant replacement project, from the Company's claim. Therefore, the BPU should determine the Company's need for rate relief based solely on the test year ending December 31, 2004.

However, in order to minimize regulatory costs, I am not opposed to the BPU reviewing the prudency of the Company's plant upgrade as part of this proceeding and approving a Phase II increase to take effect when the new treatment facility is on-line and serving customers.

**Q. Please describe how a Phase II increase would be implemented.**

A. Based on the Company's Petition, the BPU can determine the revenue requirement associated with the water treatment plant replacement project. This would include a return on investment in the new

plant, depreciation expense, and incremental operating and maintenance expenses. The Phase II revenue requirement approved in this case would then be implemented once the plant is completed, upon submission by the Company of a certification that the plant replacement project is complete and that the plant is serving customers. The Company should also provide documentation of its actual capital costs relating to the project so that the Board can verify that the estimated costs contained in the Company's filing are not over-stated. I have calculated a Phase II revenue requirement associated with the water treatment plant replacement project in Section VIII of this testimony.

**Q. Do you expect the Company to accept your recommendation that the increase associated with the water treatment plant replacement project be implemented as a Phase II increase after the replacement plant is completed and in-service?**

A. Yes, I do. The Company did not propose a Phase II in its filing. However, in its response to RAR-59, the Company indicated that "it is the understanding of the Company that the proposed increase would be implemented in two phases." Therefore, I expect the Company to accept my recommendation that the revenue requirement increase associated with the water treatment replacement project be delayed to a Phase II.

## V. COST OF CAPITAL AND CAPITAL STRUCTURE

**Q. What is the cost of capital and capital structure that the Company is requesting in this case?**

A. The Company has utilized the following capital structure and cost of capital:

| | Percent | Cost | Weighted Cost |
|---|---|---|---|
| Long Term Debt-Existing | 16.86% | 10.07% | 1.70% |
| Long Term Debt-Existing | 4.09% | 8.94% | 0.37% |
| Long Term Debt-New | 3 6.02% | 3.20% | 1.15% |
| Common Equity | 43.03% | 11.00% | 4.73% |
| Total | | | 7.95% |

**Q. Are you recommending any adjustments to this capital structure or cost of capital?**

A. Yes, I am recommending adjustments to the Company's capital structure and cost of equity.

### A. Capital Structure

**Q. What adjustments are you recommending to the Company's capital structure claim?**

A. Earlier this year, Shorelands filed a Petition requesting authorization to issue up to $5.0 million in additional debt. On April 15, 2004, the Company amended that Petition to increase the amount of borrowing from $5.0 million to $5.5 million. The Company included $5.5 million of new debt in its

capital structure and cost of capital claim in this case. However, the Company filed a subsequent letter, dated June 9, 2004, once again increasing the amount of debt for which BPU approval was being sought, from $5.5 million to $5.75 million. Therefore, at Schedule ACC-10, I have made an adjustment to include $5.75 million of new debt financing in the Company's pro forma capital structure.

## B. Cost of Equity

**Q. What is the cost of equity that the Company is requesting in this case?**

A. Shorelands is requesting a cost of equity of 11.0%.

**Q. Are you recommending any adjustment to the Company's proposed cost of equity?**

A. Yes, I am recommending an adjustment to the Company's proposed cost of equity. Specifically, I am recommending that the Commission adopt a cost of equity of 9.47% for Shorelands.

**Q. How did you develop your cost of equity recommendation?**

A. To develop a recommended cost of equity in this case, I utilized both the Discounted Cash Flow ("DCF") methodology as well as the Capital Asset Pricing Model ("CAPM"). It is my understanding that the Board has traditionally relied upon the DCF methodology for determining cost of equity for a regulated utility, and therefore I have given greater weight to my DCF result.

**Q. Please describe the DCF methodology.**

A. The DCF methodology is the most frequently used method to determine an appropriate return on equity for a regulated utility. The DCF methodology equates a utility's return on equity to the expected dividend yield plus expected future growth for comparable investments. Specifically, this methodology is based on the following formula:

$$\text{Return on Equity} = \frac{D_1}{P_0} + g$$

where "$D_1$" is the expected dividend, "$P_0$" is the current stock price, and "g" is the expected growth in dividends.

In order to ensure that the return on equity determined for a particular utility is representative of returns for comparable investments of similar risk, the DCF methodology examines returns for similar companies through the use of a "comparable" or "proxy" group. To determine a comparable group of companies, I utilized the water companies followed by the Value Line Investment Survey. To determine an appropriate dividend yield for comparable companies, i.e., the expected dividend divided by the current price, I calculated the dividend yield of each of the comparable companies under two scenarios. First, I calculated the dividend yield using the average of the stock prices for each company over the past twelve months. The use of a dividend yield using a twelve-month average price mitigates the effect of stock price volatility for any given

day. Based on the average stock prices over the past twelve-months, and the current dividend for each company, I determined an average dividend yield for the comparable group of 3.06%, as shown in Schedule ACC-13. I also calculated the current dividend yield at August 10, 2004, which showed an average dividend yield for the comparable group of 3.27%, also shown in Schedule ACC-13. Finally, I examined the average dividend yields for water utilities as reported in the August 2004, C.A. Turner Utilities Reports, which shows an average dividend yield for water utilities of 3.3%. Based on all of this data, I recommend that a dividend yield of no greater than 3.4% be used in the DCF calculation. This dividend yield of 3.4 % recognizes that the DCF model is prospective and accounts for growth that may occur over the next 12 months in the dividend yield.

**Q. What growth rate did you utilize?**

A. The actual growth rate used in the DCF analysis is the dividend growth rate. In spite of the fact that the model is based on dividend growth, it is not uncommon for analysts to examine several growth factors, including growth in earnings, dividends, and book value.

Following are the five-year historic growth rates for the companies included in my comparable group, as well as projected growth rates over the next five years, based on publicly available documents:

| | **Historic 5 Year Earnings** | **Historic 5 Year Dividends** | **Historic 5 Year Book Value** | **Projected 5 Year Earnings** | **Projected 5 Year Dividends** | **Project-ed 5 Year Book Value** |
|---|---|---|---|---|---|---|
| American States Water Co. | 1.5% | 1.0% | 4.0% | 9.5% | 1.5% | 4.0% |
| Aqua America Water Co. | 9.5% | 6.0% | 9.5% | 9.5% | 7.0% | 11.5% |
| California Water Co. | (6.5%) | 1.0% | 1.0% | 11.0% | 1.0% | 14.5% |
| Connecticut Water Co. | 2.5% | 1.0% | 3.5% | NA | NA | NA |
| Middlesex Water Co. | 0.5% | 2.5% | 3.5% | NA | NA | NA |
| SJW Corporation | -0.5% | 4.0% | 4.0% | NA | NA | NA |
| Southwest Water Corporation | 15.5% | 10.5% | 11.5% | 8.00%* | NA | NA |
| York Water Company | 2.5%* | NA | NA | 7.00%* | NA | NA |
| Average | 3.1% | 3.7% | 5.3% | 9.0% | 3.2% | 10.0% |

Sources: Value Line Investment Survey unless otherwise indicated.

* Yahoo Finance.

NA - Not available

With regard to longer-term, historic, ten-year growth rates, Value Line only reports these growth rates for American States Water Company, Aqua America, and California Water Company. As shown below, the longer-term, ten-year, historic growth rates for dividends and book value are generally below the five-year growth rates for the companies followed by Value Line, while the historic ten-year earnings growth rate is slightly higher than the five-year historic rate:

| | |
|---|---|
| Ten Year Earnings Growth | 4.0% |
| Ten Year Dividend Growth | 2.8% |
| Ten Year Book Value Growth | 5.0% |

**Q. Why do you believe that it is reasonable to examine historic growth rates as well as projected growth rates when evaluating a utility's cost of equity?**

A. I believe that historic growth rates should be considered because security analysts have been notoriously optimistic in forecasting future growth in earnings. At least part of this problem in the past has been the fact that firms that traditionally sell securities are the same firms that provide investors with research on these securities, including forecasts of earnings growth. This results in a direct conflict of interest since it has traditionally been in the best interest of securities firms to provide optimistic earnings forecasts in the hope of selling more stock. As a result of this practice, the Wall Street investment firms agreed to a $1.4 billion settlement with securities regulators in a settlement announced last year. Pursuant to that settlement, ten major Wall Street law firms agreed

to pay $1.4 billion to investigating state regulators and the United States Securities and Exchange Commission ("SEC"). Approximately $900 million of this amount constituted fines. The remainder was earmarked for various education and independent research activities. In addition, firms were required to sever the links between their stock research activities and their investment banking activities. Therefore, earnings growth forecasts should be analyzed cautiously by state regulatory commissions.

**Q. Based upon your review, what growth rate do you recommend be utilized in the DCF calculation?**

A. Based on my review of this data, I believe that a growth rate of no greater than 5.5% should be utilized. This growth rate is higher than the actual growth rates over the past five years in earnings, dividends or book value. It is also higher than the ten-year growth rate in earnings, dividends, or book value. Moreover, it is higher than the projected growth rate for dividends, which is the growth rate that is reflected in the traditional DCF formula. While the average projected growth rates in earnings and book value are higher than my recommended growth rate, I have already discussed the fact that projected growth rates, particularly in earnings, tend to be overly optimistic.

**Q. What are the results of your analysis?**

A. My analysis indicates a cost of equity using the DCF methodology of 8.90%, as shown below:

| | |
|---|---|
| Dividend Yield | 3.40% |
| Expected Growth | 5.50% |
| Total | 8.90% |

**Q. Did you also calculate a cost of equity based on the CAPM methodology?**

A. Yes, I did.

**Q. Please provide a brief description of the CAPM methodology.**

A. The CAPM methodology is based on the following formula:

Cost of Equity = Risk Free Rate + Beta (Risk Premium)

or

$$\text{Cost of Equity} = R_f + B(R_m - R_f)$$

The CAPM methodology assumes that the cost of equity is equal to a risk-free rate plus some market-adjusted risk premium. The risk premium is adjusted by Beta, which is a measure of

the extent to which an investor can diversify his market risk. The ability to diversify market risk is a measure of the extent to which a particular stock's price changes relative to changes in the overall stock market. Thus, a Beta of 1.00 means that changes in the price of a particular stock can be fully explained by changes in the overall market. A stock with a Beta of 0.60 will exhibit price changes that are only 60% as great as the price changes experienced by the overall market. Utility stocks have traditionally been less volatile than the overall market, i.e., their stock prices do not fluctuate as significantly as the market as a whole.

**Q. How did you calculate the cost of equity using the CAPM?**

A. My CAPM analysis is shown in Schedule ACC-15. First, I used a risk-free rate of 5.06% for the yield on long-term U.S. Government bonds, which was the rate at August 9, 2004, per the Statistical Release by the Federal Reserve Board. Since January 1, 2004, this rate has ranged from 4.65% to 5.56%. In addition, I used the average Beta for my proxy group, based on the Beta for each company as reported by Value Line. This resulted in an average Beta of 0.625. Finally, since I am using a long-term U.S. Government bond rate as the risk-free rate, the risk premium that should be used is the historic risk premium of small company stocks over the rates for long-term government bonds. According to the 2003 Ibbotson Associates' publication, *2003 Handbook: Stocks, Bonds, Bills, and Inflation*, the geometric risk premium of small company stocks relative to long-term risk-free rates using geometric mean returns is 6.6%. Accordingly, I

have used 6.6% as the risk premium in the development of the cost of equity based on the CAPM methodology.

**Q. What is the difference between a geometric and an arithmetic mean return?**

A. An arithmetic mean is a simple average of each year's percentage return. A geometric mean takes compounding into effect. As a result, the arithmetic mean overstates the return to investors. For example, suppose an investor starts with $100. In year 1, he makes 100% or $100. He now has $200. In year 2, he loses 50%, or $100. He is now back to $100.

The arithmetic mean of these transactions is 100% - 50% or 50%/ 2 = 25% per year. The geometric mean of these transactions is 0%. In this simple example, it is clear that the geometric mean more appropriately reflects the real return to the investor, who started with $100 and who still has $100 two years later. The use of the arithmetic mean would suggest that the investor should have $156.25 after two years ($100 X 1.25 X 1.25), when in fact the investor actually has considerably less. Therefore, a geometric mean return is a more appropriate measure of the real return to an investor.

**Q. What is the Company's cost of equity using a CAPM approach?**

A. Given a long-term risk-free rate of 5.06%, a Beta of 0.625, and a risk premium of 6.6%, the CAPM methodology produces a cost of equity of 9.19%, as shown on Schedule ACC-15.

Risk Free Rate + Beta (Risk Premium) = Cost of Equity

5.06% + (0.625 X 6.6%) = 9.19%

**Q. Based on your analysis of the DCF and CAPM results, what cost of equity are you recommending in this case?**

A. The DCF methodology and the CAPM methodology suggest that a return on equity of 8.90% to 9.19% would be appropriate. Since I recognize that the Board has generally relied primarily upon the DCF, I have weighted my results with a 75% weighting for the DCF methodology and a 25% weighting for the CAPM methodology. This results in a cost of equity of 8.90%, as shown below:

| | |
|---|---|
| DCF Result | 8.90% X 75% = 6.67% |
| CAPM | 9.19% X 25% = 2.30% |
| Total | 8.97% |

I have included one additional adjustment to the Company's cost of equity. Since Shorelands is a much smaller company than the utilities in my comparable group, I have included a small company premium of 50 basis points in my cost of equity recommendation.

**Q. What overall cost of equity that you are recommending for Shorelands?**

A. I am recommending a cost of equity of 9.47%, which includes a base award of 8.97% and a small company premium of 50 basis points, as shown below:

| | |
|---|---|
| Base Cost of Equity | 8.97% |
| Small Company Premium | 0.50% |
| Total Recommended Cost of Equity | 9.47% |

## C. Overall Cost of Capital

**Q. What is the overall cost of capital that you are recommending for Shorelands?**

A. I am recommending an overall cost of capital for Shorelands of 7.23%, based on the following capital structure and cost rates:

| | Percent | Cost | Weighted Cost |
|---|---|---|---|
| Common Equity | 42.34% | 9.47% | 4.01% |
| Long-Term Debt-Existing | 20.62% | 9.85% | 2.03% |
| Long Term Debt - New | 37.05% | 3.20% | 1.19% |
| Total Cost of Capital | | | 7.23% |

## VI. RATE BASE

**Q. What adjustments are you recommending to the Company's rate base claim?**

A. I am recommending adjustments to the Company's claims for utility plant in service, accumulated depreciation, inventory, prepayments, working capital allowance, customer advances, and deferred income taxes.

### A. Utility Plant-in-Service

**Q. How did the Company determine its utility plant-in-service claim in this case?**

A. As discussed earlier in my testimony, Shorelands' claim for utility plant includes the Company's projected plant balance at December 31, 2005, one year past the end of the test year selected by the Company. I am recommending that that the Board exclude all post-test year plant from the Company's revenue requirement. Accordingly, at Schedule ACC-3, I have made an adjustment to reflect only 2004 capital additions in rate base. To quantify my adjustment, I began with the Company's utility plant-in-service balance at December 31, 2003, as reported in the 2003 Annual Report to the BPU. I added the projected 2004 plant additions shown in the response to RAR-49 to develop my pro forma utility plant-in-service balance at December 31, 2004.

**B. Accumulated Depreciation**

**Q. Are you recommending any adjustment to the Company's claim for accumulated depreciation?**

A. Yes, I have made an adjustment to the Company's accumulated depreciation reserve claim to be consistent with the plant-in-service recommendations discussed above with regard to the projected test year plant additions. This adjustment is shown in Schedule ACC-4. Specifically, I began with the reserve balance at December 31, 2003 of $11,282,216 and added depreciation taken during 2004 to develop the pro forma reserve balance at December 31, 2004.

As shown on Schedule ACC-4, I calculated an average 2004 plant balance, by taking the average of the December 31, 2003 plant balance and my recommended pro forma balance at December 31, 2004. Since these plant balances include plant that has been financed with contributions in aid of construction ("CIAC") and customer advances, I deducted the CIAC and customer advance balances from the December 31, 2003 and December 31, 2004 plant balances. I then determined the average plant balance during 2004 for depreciable plant.

I applied the Company's composite depreciation rate of 2.5% to average utility plant-in-service, net of CIAC and advances, to determine the pro forma 2004 annual depreciation expense. I added that pro forma 2004 depreciation expense to the Company's reserve balance at December 31, 2003 to determine the pro forma accumulated depreciation at the end of the test year, December 31, 2004.

## C. Inventory

**Q. Please describe your adjustment to the Company's rate base claim for inventory.**

A. Shorelands included a projected inventory balance at December 31, 2005 of $185,000, while I am recommending that a pro forma balance at December 31, 2004 be included in the Company's claim. Moreover, since inventory balances can fluctuate from month-to-month, it is customary to use an average over some period of time in order to develop a normalized level to include in rate base. I reviewed the history of inventory balances and found that the inventory balance has decreased in each of the past three years, as shown below[2]:

| | |
|---|---|
| December 31, 2001 | $186,766 |
| December 31, 2002 | $184,376 |
| December 31, 2003 | $165,072 |
| Average | $178,738 |

Given these fluctuations, I recommend that a three-year average of Shorelands' inventory balances be used to determine a normalized level for inclusion in pro forma rate base in this case. My adjustment is shown in Schedule ACC-5.

2 Per Company Exhibit 2.

## D. Prepayments

**Q. Please describe your adjustment to the Company's rate base claim for prepayments.**

A. My recommended adjustment is similar to the adjustment discussed above with regard to inventory. Following are the prepayment balances for each of the past three years[3]:

| | |
|---|---|
| December 31, 2001 | $250,597 |
| December 31, 2002 | $231,446 |
| December 31, 2003 | $256,899 |
| Average | $246,314 |

The Company's three-year average historic balance is significantly less than the projected balance at December 31, 2005 of $295,000. I have utilized this three-year average in my recommended adjustment, which is shown in Schedule ACC-6.

## E. Cash Working Capital

**Q. What is cash working capital?**

A. Cash working capital is the amount of cash that is required by a utility in order to cover cash outflows between the time that revenues are received from customers and the time that expenses

3 Id.

must be paid. For example, assume that a utility bills its customers monthly and that it receives monthly revenues approximately 30 days after the midpoint of the date that service is provided. If the Company pays its employees weekly, it will have a need for cash prior to receiving the monthly revenue stream. If, on the other hand, the Company pays its management service fees quarterly, it will receive these revenues well in advance of needing the funds to pay its management service fee expense.

**Q. Do companies always have a positive cash working capital requirement?**

A. No, they do not. The actual amount and timing of cash flows dictate whether or not a utility requires a cash working capital allowance. Therefore, one should examine actual cash flows through a lead/lag study in order to accurately measure a utility's need for cash working capital.

**Q. How did the Company determine its cash working capital claim?**

A. The Company used a formula method, i.e., its cash working capital claim is based on 1/8th of its operating expenses. This 1/8th formula method is based on the assumption that a utility requires 45 days of cash working capital, i.e., that it will receive its revenues, on average, 45 days after it pays its expenses.

**Q. Do you believe that the formula method provides an accurate calculation of a utility's cash working capital requirement?**

A. No, I do not. The problem with the formula method is that it will always result in a positive cash working capital requirement. The formula method gives no consideration to the actual timing and pattern of cash flows. Therefore, this method can never accurately measure a utility's need for cash working capital. For example, I understand that in a recent base rate case, Middlesex Water Company reported a negative cash working capital requirement. So a utility's cash working capital requirement is not always positive, even though the formula method will always yield a positive result.

**Q. What other methods can be used to determine a utility's cash working capital requirement?**

A. The most accurate method, and one that is commonly used, is the lead/lag method. This methodology examines the actual timing and pattern of cash flows by comparing the average revenue lag, which determines how soon after the midpoint of the service period the Company receives its revenues, with the expense lag, which determines how soon after incurring a particular expense, payment on that expense is required to be made. Shorelands did not provide a lead/lag study in this case.

**Q. What do you recommend?**

A. I recommend that the Company's cash working capital claim be denied. As was recently demonstrated in the Middlesex Water Company case, it is entirely possible for a utility to have a negative cash working capital requirement. Since the Company did not provide a lead/lag study, it has not supported its request for a cash working capital allowance. Accordingly, I recommend that its cash working capital claim be denied. My adjustment is shown in Schedule ACC-7.

## F. Customer Advances

**Q. What is a customer advance?**

A. A customer advance may include cash, services, or property received from developers, individuals, municipalities, or other parties for the purpose of constructing utility assets. Customer advances are similar to CIAC. However, contributed plant is a permanent transfer of assets to the utility while advances more closely resemble a partial loan, since at least a portion of the value of the advanced property may be refunded at some point, in whole or in part, to customers or developers depending upon specific factors, such as the amount of annual revenues generated as a result of extending service. To the extent that customer advances are refunded more quickly than new advances are received, the amount of customer advances on a utility's balance sheet will decline over time.

Customer advances are deducted from rate base, since customer advances represent plant

that has not been funded by the utility's investors. Since investors did not finance this plant, they should not be permitted to earn a return upon it, hence, customer advances are excluded from a utility's rate base.

**Q. How did the Company determine its claim for customer advances?**

A. As shown in Exhibit 2, page 18, of the Company's filing, Shorelands included customer advances of $450,130, which is the projected balance at December 31, 2005. Since I am recommending that all post-test year adjustments be eliminated, I have included a pro forma balance for customer advances at December 31, 2004.

**Q. How did you determine the pro forma balance of customer advances at December 31, 2004 to include in rate base?**

A. I began with the balance for customer advances at December 31, 2003 of $950,130. In order to determine a pro forma balance at the end of the Test Year, I reviewed information on net advances over the past several years. From December 31, 2001 to December 31, 2002, net customer advances decreased by $285,481, as shown in Exhibit 2, page 21 of the Company's filing. From December 31, 2002 to December 31, 2003, net customer advances declined by $213,122. I used the average of these amounts, or $249,302, as the pro forma decrease expected from December 31, 2003 to December 31, 2004, the end of the test year in this case. My adjustment therefore

results in a balance for customer advances of $700,829, as shown in Schedule ACC-8.

**Q. Did you also make an adjustment to the Company's claim for CIAC?**

A. No. The Company's CIAC balance has remained the same over the past few years and the Company is not projecting any change in its CIAC balance in 2004 or 2005. Therefore, I made no adjustment to the CIAC amount included by the Company in its rate base claim.

## G. Deferred Tax Reserve

**Q. How did the Company determine its claim for deferred taxes?**

A. Shorelands included a deferred tax reserve balance of $850,000, which is the projected balance at December 31, 2005.

**Q. What adjustment are you recommending to the Company's deferred income tax reserve claim?**

A. I am recommending that a pro forma balance at December 31, 2004 be included in rate base. In order to determine a pro forma deferred tax reserve balance at December 31, 2004, I began with the balance at December 31, 2003, in the amount of $707,915. I then reduced this reserve balance to reflect the annual amortization of deferred investment tax credits, in the amount of $12,000. This amortization is shown in Exhibit 2, page 21 of the Company's filing. I did not make

any other adjustment to the Company's deferred tax reserve balance. Deferred tax reserves generally increase over time, as new plant is added by the utility. Thus, my recommendation is likely to overstate the Company's rate base and therefore to overstate its need for rate relief. My adjustment is shown in Schedule ACC-9. If the Company provides an updated deferred income tax balance, I will revise my recommendation accordingly.

### H. Summary of Rate Base Issues

**Q. What is the impact of all of your rate base adjustments?**

A. My recommended adjustments reduce the Company's rate base claim from $16,200,880 as reflected in its filing, to $9,281,191, as summarized on Schedule ACC-2.

## VII. OPERATING INCOME ISSUES

### A. Salaries and Wages

**Q. Are you recommending any adjustment to the Company's salary and wage claim?**

A. Yes, I am recommending that the Company's post test year adjustments be denied.

**Q. How did the Company determine its salary and wage claim in this case?**

A. As shown in the response to RAR-18, Shorelands began with its projection of 2004 labor costs. The Company then added an increase of 4% to reflect projected 2005 labor increases. In addition,

the Company included costs for one open engineering position in the amount of $75,000.

**Q. What do you recommend?**

A. Since I am recommending that the Board deny any post test year adjustments, I have eliminated the 2005 labor increase and the costs for the new employee position. My adjustment is shown in Schedule ACC-17. In addition, at Schedule ACC-18, I have made an adjustment to eliminate the payroll taxes associated with the labor costs that I have eliminated.

## B. Pension Costs

**Q. Please describe the Company's pension cost claim.**

A. Shorelands has included a pension cost claim of $166,000 in its filing. The Company stated in Exhibit 2, page 11, that it "has been advised...that an increased contribution will be required in the rate year to meet the plan's funding requirements...The Company's consultant has forecast rate year FASB [Financial Accounting Standards Board] 87 pension cost to be no lower than 141,777 (sic)." Thus, the Company's claim in this case is based on its projected funding requirements, not on its actuarial FASB 87 requirement.

**Q. Please explain the difference between the FASB 87 pension expense and the amount funded.**

A. Companies are required to calculate their pension expense for financial reporting purposes on an

accrual basis pursuant to FASB 87. The minimum amount that must be contributed to a company's pension plan is determined each year pursuant to the Employee Retirement Income Security Act ("ERISA") while Internal Revenue Service ("IRS") regulations dictate the maximum contribution that is tax deductible. Over the long term, a company's pension requirements pursuant to FASB 87 should match its funding requirements.

Some regulatory commissions utilize FASB 87 for ratemaking purposes while other commissions use the amount of annual contributions to determine the pension cost to be recovered from ratepayers. Both methods have some merit. The important point is that regulatory commissions should be consistent in their approach and should not fluctuate between the use of the FASB 87 method and the cash funding method.

**Q. Can you provide an example of the annual differences between the FASB 87 pension cost and the contributions made to a pension fund?**

A. Yes, this difference is illustrated in the Company's response to RAR-37. According to that response, Shorelands incurred the following FASB 87 pension costs over the past five years:

| | |
|---|---|
| 2003 | $141,777 |
| 2002 | $ 44,798 |
| 2001 | ($26,986) |
| 2000 | ($43,841) |
| 1999 | ($45,569) |

As demonstrated above, a company's pension costs pursuant to FASB 87 may be positive or negative. For example, from 1999-2001, Shorelands actually booked a negative expense or credit pursuant to FASB 87. However, RAR-37 shows that Shorelands has not made any cash contribution to its pension plan over the past five years. One of the reasons why the Company projects that it will have to make a cash contribution for 2004 is because no cash contributions have been made over the past five years.

The differences between the annual FASB 87 pension cost and the annual amount of pension funding demonstrate why it is important for regulatory commissions to be consistent from rate case to rate case. If a regulatory commission switched its ratemaking methodology for pension costs periodically, utility companies and other parties could advocate the methodology that gave them the best result, i.e., utility companies could promote the methodology that resulted in the largest revenue increases, and consumer advocates could promote the methodology that resulted in

the smallest increases. Therefore, regulatory commissions are consistent in their ratemaking approach in order to remove any incentive for such gaming.

**Q. What methodology has traditionally been used by the Board?**

A. In New Jersey, the Board has traditionally used the FASB 87 methodology to set rates. I recommend that it continue to utilize this methodology in this case.

**Q. What is the impact of using the FASB 87 methodology to set rates in this case?**

A. Use of the FASB 87 methodology will result in a pension cost of $141,777, which is the pension cost determined by the Company's most recent actuarial report. This report, which was supplied by the Company in response to RAR-36, was prepared by the Company's actuaries in May 2004.

At Schedule ACC-19, I have made an adjustment to reflect the FASB 87 pension cost of $141,777 in my revenue requirement recommendation.

## C. Deferred Purchased Water Costs

**Q. Please describe the Company's claim for deferred purchased water costs.**

A. Shorelands has included a purchased water expense claim in its filing for normal, prospective water purchases, based on projected volumes and current rates for purchased water. In addition, Shorelands is requesting deferred accounting treatment in this case for increased purchased water

costs from the New Jersey Water Supply Authority ("NJWSA"). Specifically, the Company is requesting of $45,000 for increased costs incurred from July 1, 2004 to December 31, 2004. In addition, Shorelands is requesting recovery of costs in the amount of $32,560 relating to negotiations for water diversion rights from Keansburg Municipal Utility Authority ("Keansburg"). The Company is proposing that both the deferred purchased water costs and the costs relating to the water diversion rights be recovered over a two year period.

**Q. Do you believe that the Company's claim is reasonable?**

A. No, I do not. I recommend that the Board reject both the Company's claim relating to deferred purchased water costs and its claim with regard to costs for water diversion rights from Keansburg.

**Q. What is the basis for your recommendation?**

A. Shorelands had the opportunity to file for a purchased water adjustment clause ("PWAC") within three years of its last base rate case. Prior to that case, the Company did have a PWAC in place. The PWAC is the mechanism adopted by the Board in order to provide for dollar-for-dollar recovery of purchased water costs. The Company did not request implementation of a PWAC and it should not now be permitted to pass through these additional costs to ratepayers. Under a PWAC mechanism, water utilities have the ability to pass through to ratepayers all purchased water costs on a dollar-for-dollar basis, but in return they must file periodically with the Board and they

must flow back to ratepayers any over-recovery for purchased water costs. Shorelands apparently made the decision that it would take the risk of absorbing purchased water costs and that it would retain any benefits if actual purchased water costs were less than the amounts included in base rates. There is no rationale for now permitting the Company to defer increased costs for future recovery. My adjustment is shown in Schedule ACC-20.

**Q. In determining the Company's prospective purchased water costs, have you considered the higher NJWSA rates that are now being charged to Shorelands?**

A. Yes, I have. I am not recommending any adjustment to the Company's claim for prospective purchased water costs, which reflects new rates implemented by the water providers in 2004. My recommendation is solely to disallow the past costs that have been incurred by Shorelands, since the Company chose not to utilize the PWAC mechanism that it had available for purchased water costs.

**Q. Why are you recommending disallowance of the costs associated with the water diversion rights from Keansburg?**

A. The costs associated with negotiation of the water diversion rights from Keansburg were booked to Account 301 - Land and Land Rights.[4] According to the Company, it sought approval from the New Jersey Department of Environmental Protection ("NJDEP") for this transfer of water diversion

rights and this approval is still pending. However, Keansburg has now demonstrated a renewed need for these water division rights and I understand that these water division rights will not be transferred to Shorelands. Therefore, the investment booked by the Company has not been used to provide utility service and will not be used to provide utility service in the future. Accordingly, there is no rationale for charging ratepayers for these costs. The Company is compensated for various business and financial risks through an appropriate return on equity award. One of the risks for which shareholders are compensated is the risk that they will make investments in assets that are not used and useful in the provision of regulated utility service and that they will not be able to recover these investments from ratepayers. Ratepayers received no benefit from these water diversion rights costs and they will not receive any benefit from them in the future. Therefore, I recommend that recovery of such costs be denied. My adjustment is shown in Schedule ACC-20.

4 Company Exhibit 2, page 16.

**D. Regulatory Commission Costs**

**Q. Please describe the Company's claim for regulatory commission costs.**

A. Shorelands is requesting recovery of rate case costs for the current case of $100,000. These costs are composed of the following:

| | |
|---|---|
| Legal | $ 75,000 |
| Financial (Rate of Return) | $ 20,000 |
| Accounting | $ 5,000 |
| Total | $100,000 |

Shorelands has used a two-year amortization period for recovery of these costs.

**Q. Are you recommending any adjustment to the Company's claim.**

A. Yes, I am recommending two adjustments to the Company's claim. First, I am recommending that the Company's rate case costs be amortized over a four-year period. The Company's last three base rate case proceedings had rates effective July 1990, July 1994, and June 1998.[5] Rates in this case will not be effective until late in 2004. Therefore, on average, there has been at least four years between each of the Company's base rate case proceedings since 1990. Accordingly, I am recommending a four-year amortization period in this case. My adjustment is shown in Schedule ACC-21.

**Q. What is your second adjustment?**

A. The Board has a longstanding policy of requiring a 50/50 sharing of rate case costs between ratepayers and shareholders. Such a sharing has not been reflected in the Company's filing. Therefore, I recommend that rate case expenditures be subject to this 50/50 sharing, consistent with the Board's policy.

**Q. Hasn't the Board previously allowed this Company to collect 100% of rate case costs from ratepayers?**

A. The Board did permit West Keansburg Water Company, a predecessor to Shorelands, to forego a 50/50 sharing with ratepayers.[6] This decision was made over twenty years ago. Furthermore, the Board's Decision in that case stated the following,

> In the recent past proceedings involving the State's major utility companies, the Board has shared rate case expenses, including Rate Counsel fees, equally between the shareholders and the ratepayers. While we continue to consider this issue on a case by case basis, we are of the opinion that the sharing of rate case expenses by a company the size of Petitioner is inappropriate. It is our belief that the sharing of rate case expenses would have a greater negative effect on companies such as Petitioner as opposed to major utilities. This is so because rate case expenses make up a substantially higher percentage of operating expenses for such companies and the resultant reduction in the earned rate of return would be greater.

5 Response to RAR-42.
6 In the Matter of West Keansburg Water Company, BPU Docket No. 838-737, OAL Docket No. PUC 7175 (April 12, 1984).

> The Board will continue to closely scrutinize and review all rate case expenses incurred by the Petitioner in the future in order to assess their reasonableness. As such, the Company is urged to use its utmost discretion and best efforts in order to minimize such expenses to the greatest extent possible.

I believe that the facts in the Shorelands case are substantially different than in the West Keansburg case for several reasons. First, it is my understanding that the rate case costs being claimed in the West Keansburg case amounted to over 4% of total revenue, while the Company's claim in this case amounts to 1.2%. On an annual basis, assuming a four- year amortization, the shareholders' portion of these rate case costs will amount to less than two-tenths of one percent (0.2%) of Shorelands 2004 revenue. In addition, while still a relatively small company, Shorelands has grown significantly relative to the West Keansburg system that was the subject of the Board's order. Therefore, the impact of absorbing 50% of these expenses will be much less on Shorelands today than it would have been on West Keansburg in 1984. Furthermore, while the Board noted in its Order that "Rate Counsel" fees were included in rate case costs in 1984, fees for the Ratepayer Advocate, the successor agency to Rate Counsel, are not included in the Company's rate case costs and are not subject to this 50/50 sharing. For all these reasons, I recommend a 50/50 sharing of rate case costs in this case. My adjustment is shown in Schedule ACC-21.

## E. Inflation Adjustment

**Q. Did the Company use an inflation adjustment to determine its pro forma claim for any cost categories?**

A. Yes, Shorelands developed its 2005 claim by applying a 5% inflation adjustment to its projected 2004 test year costs for water treatment, transmission and distribution, customer accounting, all other A&G, and general plant expenses. In addition, the Company used a 5% inflation adjustment to develop a portion of its claim for pumping expenses. While the Company indicated that its claims for these costs were based on "management's estimate," according to its discovery responses the Company generally utilized a 5% inflation factor.

**Q. Are you recommending any adjustment to the Company's claim for these costs?**

A. Yes, I am recommending that the Company's proposed inflation adjustments be rejected, for two reasons. First, inflation adjustments do not meet the standard for known and measurable changes. The Company has not demonstrated that these costs vary in proportion to inflation, nor has the Company provided any support for the use of a 5% inflation factor. Second, as previously discussed, I am recommending that all post-test year adjustments be eliminated, on the basis that the Company's test year does not end until December 31, 2004, well after the hearings in this case. Therefore, speculative 2005 cost increases for these cost categories should be eliminated from the Company's revenue requirement claim. My adjustment is shown in Schedule ACC-22.

It should be noted that the Company's claim for an adjustment in 2005 for pumping expenses included both an inflation adjustment and an adjustment related to increased power costs resulting from the water treatment plant replacement program. Both of these Company adjustments are eliminated from my revenue requirement in Schedule ACC-22, since my recommendation is to disallow all post-test year adjustments. However, I have included incremental power costs in the Phase II revenue increase that I propose be implemented once the water treatment replacement plant is complete, as discussed in Section VIII of this testimony.

## F. Depreciation Expense

**Q. Are you recommending any adjustment to the Company's depreciation expense claim?**

A. Yes, I am recommending an adjustment to revise the Company's depreciation expense claim consistent with my recommended utility plant-in-service adjustment. Since I am recommending that the Company's rate base include plant balances at the end of the 2004 test year, it is necessary to make a corresponding adjustment to eliminate the annual depreciation expense on plant that will not be in-service by December 31, 2003. At Schedule ACC-23, I have calculated a pro forma depreciation expense based on my utility plant-in-service balance at December 31, 2004. I have utilized the Company's composite depreciation rate of 2.5% to develop my adjustment. In quantifying my adjustment, I have excluded all depreciation expense on contributed and advanced plant.

**Q. Is the Company taking depreciation on its contributed plant?**

A. It appears that Shorelands may be including depreciation expense on contributed and advanced plant in its claim. Depreciation expense on both advances and contributions should be excluded from a utility's revenue requirement. Contributed and advanced plant that is not refunded are, by definition, non-investor supplied capital. Investors are entitled to a return on their investment, and to a return of their investment through depreciation charges. However, it is inappropriate to return contributed or advanced capital to investors through depreciation charges, since investors never funded this investment. Depreciation expense on contributed or advanced plant represents a return of capital to shareholders which the shareholders never supplied, and therefore it should be eliminated from the Company's claim.

## G. Income Tax Expense at Present Rates

**Q. Are you recommending any adjustment to the Company's income tax expense claim?**

A. Yes, I am, although it is more of an adjustment in presentation than in substance. In calculating a utility's need for rate relief, I first calculate its pro forma income at present rates by making various operating income adjustments to its claim for operating income at present rates. I then compare its pro forma income at present rates with its required operating income, which is based upon my recommended rate base and cost of capital. The difference between the Company's income at present rates and its required income is its income deficiency or surplus. This surplus or deficiency

is then grossed-up for taxes to an operating revenue amount.

In its filing, the Company calculated that it has a taxable loss at present rates (once its interest expense is taken into account), and therefore it included no income tax liability in its pro forma income statement at present rates. However, because of this tax loss, the Company can increase its operating revenue up to a point without incurring any positive income tax liability. This is a benefit to the Company that is not fully reflected in its pro forma income calculation at present rates. Therefore, at Schedule ACC-24, I have made an adjustment to the Company's income tax claim, at present rates, to reflect this tax benefit. Related to this adjustment is the fact that the revenue multiplier that I use to gross-up the Company's income is much higher than the revenue multiplier that is implicit in the Company's Petition. Therefore, my reduction in income taxes at present rates is largely offset by my use of a higher revenue multiplier.

## H. Interest Synchronization and Taxes

**Q. Have you adjusted the pro forma interest expense for income tax purposes?**

A. Yes, I have made this adjustment at Schedule ACC-25. It is consistent (synchronized) with my recommended rate base, capital structure, and cost of capital recommendations. I am recommending a lower rate base than the rate base included in the Company's filing. My recommendations, therefore, result in lower pro forma interest expense for the Company. This lower interest expense, which is an income tax deduction for state and federal tax purposes, will result in an

increase to the Company's income tax liability under my recommendations. Therefore, my recommendations result in an interest synchronization adjustment that reflects a higher income tax burden for the Company, and a decrease to pro forma income at present rates.

## I. Revenue Multiplier

**Q. What revenue multiplier have you used for your adjustments?**

A. My revenue multiplier includes gross receipts taxes of 7.50%, franchise taxes of 5.00%, excise taxes of 1.56%, and a BPU assessment of .17%. resulting in total revenue taxes of 14.23%, as shown on Schedule ACC-26. In addition, I have utilized a federal income tax rate of 34%. These tax rates are the same rates used by Shorelands in its filing.

## VIII. PHASE II INCREASE

**Q. Once the water treatment replacement project is complete, what level of additional rate increase would you recommend?**

A. Once the project is complete, I recommend that the Company implement a Phase II increase based on the direct incremental costs of the facility. These costs include incremental power costs, incremental chemical costs, and incremental sludge disposal costs. These were the incremental operating expenses identified by Shorelands. In addition, I have included Shorelands' claim for incremental depreciation expense, based on its composite rate of 2.5%.

In addition to these incremental expenses, I have also included in my Phase II recommendation the additional operating income that Shorelands will require on the replacement plant, based on my overall recommended rate of return of 7.23%. Finally, I have reduced the Company's incremental revenue requirement to reflect interest synchronization associated with the new facility. Since the water treatment replacement facility will increase the Company's interest expense, there will be a corresponding adjustment in its income tax liability.

As shown on Schedule ACC-27, I am recommending a Phase II increase of $958,013 for Shorelands. The Phase II increase should not be implemented until the Company provides the appropriate documentation certifying that the water treatment replacement plant is complete and in-service. The Company should also provide documentation of its actual capital costs relating to the project so that the Board can ensure that the estimated costs contained in the Company's filing are not over-stated.

**Q. Should the Board include other increases in Phase II, such as salary and wage increases?**

A. No, it should not. As stated earlier, the Board should reject any post-test year adjustments, given the litigation schedule in this case. While I am recommending a Phase II increase associated with one construction project, that does not change my recommendation that the Company's post-test year adjustments are too speculative in this case. If the Company wants to delay the hearings in this case and the implementation of any rate increase until it has actual results for the twelve months

ending December 31, 2004, then the Board may want to consider certain post-test year adjustments. However, given the current schedule in this case and the Company's selection of the 2004 test year, no post-test year adjustments should be included in Phase II except for direct incremental costs of the water treatment replacement project.

## IX. REVENUE REQUIREMENT SUMMARY

**Q. What is the result of the recommendations contained in this testimony?**

A. My adjustments result in a revenue requirement deficiency at present rates of $112,957, as summarized on Schedule ACC-1. This recommendation reflects revenue requirement adjustments of $1,529,626 to the Company's requested revenue requirement increase of $1,642,583. In addition, I am recommending a Phase II increase of $958,013 (Schedule ACC-27) once the water treatment plant replacement project is complete and the plant is in-service.

**Q. Have you quantified the revenue requirement impact of each of your recommendations?**

A. Yes, at Schedule ACC-28, I have quantified the revenue requirement impact of the rate of return, rate base, revenue and expense recommendations contained in this testimony.

**Q. Have you developed a pro forma income statement?**

A. Yes, Schedule ACC-29 contains a pro forma income statement, showing utility operating income

under several scenarios, including the Company's claimed operating income at present rates, my recommended operating income at present rates, and operating income under my proposed rate increase. My recommendations will result in an overall return on rate base of 7.23%.

**Q. How do you recommend that any rate increase be allocated among Shorelands' customer classes?**

A. I recommend that both the Phase I and Phase II rate increases be allocated on an across-the-board basis. Shorelands has not provided an allocated cost of service study and therefore there is no documentation that supports any other revenue allocation.

**Q. Does this conclude your testimony?**

A. Yes, it does.